

Different Types of Science

There are many different kinds of scientists or disciplines of scientists.

Fill in the blanks (using the words provided—use each word once) to complete the definition for each field of study.

- 1) **Biologists** study all living things—from people to _____.
- 2) **Engineers** are great at designing and building new _____ and structures.
- 3) **Computer** scientists work with _____.
- 4) **Physicists** understand the behavior of non-living forces. They can work with gravity, lenses, and more. Physicists can take a burst of _____, make it more powerful, and change it into a laser.
- 5) **Chemists** _____ different substances together to create new things.
- 6) Despite their name, **meteorologists** don't actually study meteors, they are scientists you might see on the evening news reporting on the _____.
- 7) **Geologists** study the earth, the large masses of land which move around its surface, and the many different _____ that make up our landscape.
- 8) **Astronomers** make detailed observations of the objects in the night sky—from the moon to the _____ and planets.

⇒ **Words:** light, super computers, plants, stars, rocks, machines, mix, weather

BIG SCIENCE

At the Lawrence Livermore National Laboratory, scientists from different backgrounds work together on many different projects. When a project team consists of scientists from many different scientific disciplines, it is called a “multidisciplinary” team. Often, this approach, called, “Big Science” results in inventions that no one person could do by themselves. Think about the different types of scientists above and, reason out which types might have helped to create the following devices:

- 1) HANAA—a handheld machine that sniffs the air and tests the atmosphere for germs that might be dangerous to human beings. What types of scientists might have worked on HANAA?
- 2) NARAC—A group with a computer program that can make a 3-D model of a cloud on a windy day and tell people where that cloud is going to go before it actually gets there. (This can be useful if a volcano goes off near a town and spits a huge cloud of ash into the air). What kinds of scientists probably work at NARAC?

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- 3) GUIDESTAR LASER—A laser that can be mounted near a telescope in an observatory. The laser shoots up into the air and clears the atmosphere briefly for the telescope to get a very clear view. What kinds of scientists probably worked on the Guidestar laser?
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